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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY  
Vetch (*Vicia* spp.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country)		FOR OFFICIAL USE ONLY
		PVPO NUMBER

## PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Fill unused columns with zeroes (e.g.,  when the number is 99). In comparisons to the standard varieties, the value  should only be used to indicate that the varieties are equal. Characteristics described, including numerical measurements, should represent those that are TYPICAL for the variety. Measured data should be for SPACED PLANTS. Characters in item 3 are considered to reflect homogeneity; frequencies of nontypical plants should be taken into regard in Exhibit A. Any recognized color fan, e.g., Natural Bureau of Standards Circular 553 Supplement, may also be used to determine plant colors; designate system used:

\_\_\_\_\_. Ranges of values may be included with additional description elsewhere in the application.

**NOTE:** For single plant data a minimum of 100 plants is suggested.

**1. KIND** (in accordance with the Federal Seed Act): Use the standard comparison varieties (in parentheses) in items below.

1 = Common (*Willamette*)    2 = Hairy (Madison)    3 = Hungarian (    )    4 = Monantha (*Lafayette*)  
5 = Narrowleaf (    )    6 = Purple (    )    7 = Woollypod (*Lana*)  
8 = Other (Specify) \_\_\_\_\_

**STANDARD COMPARISON VARIETIES** (Use the variety appropriate for the kind)

1 = Willamette    2 = Madison    4 = Lafayette    7 = Lana    3, 5, 6, 8 = Specify \_\_\_\_\_

**2. SEED:**

Shape: 1 = Spherical    2 = Subspherical (*Willamette*)    3 = Sublenticular    4 = Rectangular  
5 = Other (Specify) \_\_\_\_\_

mm Maximum Diameter     gms/1,000 seeds \_\_\_\_\_

gms Lighter Than  Standard Variety  
 gms Heavier Than  Standard Variety

SEED COLOR: Colors should be determined on mature, freshly harvested seed.

Ground color of testa: 1 = White    2 = Pink    3 = Brown    4 = Light Green    5 = Grey-green  
6 = Grey (*Willamette*)    7 = Blue-black

Seed Coat Pattern (Ornaments):

Type of Main Pattern: {  
 Type of Secondary Pattern: { 1 = None    2 = Stippling    3 = Speckling (*Willamette*)    4 = Marbling

**2. SEED:** (continued)

☐ Color of Main Patterning: 1 = Brown=Red Brown 2 = Sepia = Grey Brown 3 = Dark Gray (*Willamette*) 4 = Violet

## HILUM:

☐ Color: 1 = White 2 = Brown (*Willamette*) 3 = Sepia = Grey-brown 4 = Black

☐ Size (Length – Compared to Seed Circumference): 1 = Very Small (<1/6) 2 = Small (1/6 – 1/4)  
3 = Large (1/4 – 1/2) 4 = Very Large (>1/2)

☐ COTYLEDON COLOR: 1 = Yellow 2 = Buff 3 = Orange 4 = Pink-violet 5 = Other (Specify) \_\_\_\_\_

**3. SEEDLING:** Comparison varieties should be grown under identical conditions with the application variety in the field. Seedlings should be examined when all primary leaves are fully developed, but not senescent (3-4 weeks after germination). Greenhouse trials are not comparable; please indicate if these items are used:

## SEEDLING STEM (Primary Axis):

☐ ☐ mm Height (From Soil to Insertion of Highest Primary Leaf)..... ☐ ☐ mm Shorter Than ☐ Standard Variety  
☐ ☐ mm Taller Than ☐ Standard Variety

☐ ☐ No. of Secondary Branches ☐ Stem Hairiness: 1 = Glabrous 2 = Pubescent 3 = Hairy

☐ Stem Coloration (Especially in Leaf Axils): 1 = Green 2 = Reddish

## PRIMARY LEAF: 1st Primary Leaf)

☐ No. of Leaflets/Primary Leaf (Not No. of Pairs)

☐ Shape (See Illustrations): Compare Dimensions and Base and Apex.

1 = Subcordate

2 = Ovate

3 = Elliptic

4 = Lanceolate

5 = Sublinear

6 = Linear



☐ ☐ mm Maximum Leaflet Width..... ☐ ☐ mm Narrower Than ☐ Standard Variety  
☐ ☐ mm Wider Than ☐ Standard Variety

☐ ☐ mm Leaflet Length..... ☐ ☐ mm Shorter Than ☐ Standard Variety  
☐ ☐ mm Longer Than ☐ Standard Variety

## Hairiness: (Consider Density and Length)

☐ Upper Surface { 1 = Glabrous 2 = Villous (Scarce, >1 mm) 3 = Pubescent (Common, < 1/2 mm)  
☐ Lower Surface { 4 = Hairy (Common, > 1/2 mm)

**4. MATURITY:**(50% of Plants in Bloom)

☐ ☐ Days Earlier Than ☐ Standard Variety

☐ ☐ Days Later Than ☐ Standard Variety

**5. ADULT PLANT:**

☐ Habit: 1 = Decumbent 2 = Climbing 3 = Erect

**5. ADULT PLANT:** (continued)

☐ ☐ ☐ cm Height (Canopy Height if not Erect) ..... ☐ ☐ cm Shorter Than ☐ Standard Variety  
☐ ☐ ☐ cm Taller Than ☐ Standard Variety

**6. ADULT LEAF:**(At 2/3 Height of Plant on Main Stem at Flowering)

No. of Pairs of Leaflets

Adult Leaflet Shape: 1 = Elongate 2 = Elliptical 3 = Other (Specify) \_\_\_\_\_

Adult Leaflet Apex: 1 = Truncate 2 = Notched 3 = Deeply Notched

Stipular Nectaries: 1 = Colorless 2 = Red  Terminal Tendrils: 1 = Absent 2 = Present**7. FLOWER:**

No Flowers/Peduncle

PETAL (Fully Expanded Standard of a Freshly Opened Flower):

Color (Anterior Face): 1 = White 2 = Pink 3 = Light Violet (Willamette) 4 = Dark Purple 5 = Other (Specify) \_\_\_\_\_

mm Width.....

{	<input type="text"/>	mm Narrower Than	<input type="text"/>	Standard Variety
	<input type="text"/>	mm Wider Than	<input type="text"/>	Standard Variety

**8. POD:** (at Seed Maturity)

Color: 1 = Cream 2 = Buff 3 = Olive Tan (Willamette) 4 = Black

Hairiness: 1 = Glabrous 2 = Sparsely Pubescent 3 = Pubescent 4 = Hairy

Shape 1 = Straight Linear 2 = Curved Linear 3 = Rhomboid

mm Width.....

{	<input type="text"/>	mm Narrower Than	<input type="text"/>	Standard Variety
	<input type="text"/>	mm Wider Than	<input type="text"/>	Standard Variety

No of Seeds/Pod

Constrictions Between Seeds: 1 = Slight 2 = Deep

Shape of Distal End of Pod (Angle Adjacent to Beak): 1 = Obtuse 2 = Acute

BEAK:

Length: 1 = Short (Tuberculate) 2 = Long (Extended)

Shape: 1 = Straight 2 = Recurved

**9. DISEASE AND PESTS:** (0 = Not Tested 1 = Susceptible 2 = Resistant)Anthracnose (*Colletotrichum* spp)Downy Mildew (*Peronospora* spp)Rust (*Uromyces fabae*)

Leaf Spot (Specify) \_\_\_\_\_

Stem Rot (Specify) \_\_\_\_\_

Root Rot (Specify) \_\_\_\_\_

Vetch Bruchid (*Bruchus brachialis*)Potato Leafhopper (*Empoasca fabae*)Lygus Bugs (*Lygus* spp)Clover Leafhopper (*Aceratagallia sanguinea*)Pea Aphid (*Acyrtosiphon pisum*)Fall Armyworm (*Spodoptera frugiperda*)Corn Earworm (*Heliothis zea*)Cutworms (*Euxoa* spp)**9. DISEASE AND PESTS:** (0 = Not Tested 1 = Susceptible 2 = Resistant)

Other (Specify) \_\_\_\_\_

Other (Specify) \_\_\_\_\_

ROOT KNOT NEMATODES (*Meloidogyne* spp)*M. incognita acrita**M. incognita**M. arenaria**M. javanica**M. hapia*

**10. INDICATE THE VARIETY MOST CLOSELY RESEMBLING THE APPLICATION VARIETY FOR THE FOLLOWING:**

CHARACTER	VARIETY	CHARACTER	VARIETY
Cold Hardiness		Earliness	
Percentage Hard Seeds		Seed Yield	
Pod Dehiscence		Growth Habit	

**REFERENCES:**

Hughes, P. 1954. Études préliminaires a la creation d'un catalogues des espèces et variétés de vesces cultivées en France. Ann. De l'Amélioration des Plant., Ser. B, 3: 385-448.

Ianelli, P. 1964. Variety testing of vetches. Proc. Int. Seed Test. Ass. 29(4): 887-907.

**COMMENTS:**